



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,200	04/11/2001	Chul-Min Kim	P56349	1160

7590  
Robert E. Bushnell  
Suite 300  
1522 K Street, N.W.  
Washington, DC 20005

01/25/2006

EXAMINER

SHIBRU, HELEN

ART UNIT	PAPER NUMBER
----------	--------------

2616

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/832,200

Applicant(s)

KIM, CHUL-MIN

Examiner

HELEN SHIBRU

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 9, 18 and 19 is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-17 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Response to Amendment***

1. The amendments, filed 11/10/2005, have been entered and made of record. Claims 1-20 are pending. In view of the Applicants' amendments to the specification and claims 7 and 17, the objections are hereby withdrawn.

***Response to Arguments***

2. Applicant's arguments filed on 11/10/2005 have been fully considered but they are not persuasive. See the new ground(s) of rejections set below.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7, 10-17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeong (US Pat. No. 5,218,489) in view of Kubota (US Pat. No. 5,359,428).

Regarding claim 1, Jeong discloses a video signal processing with an envelope detector (see fig. 2 and 3 envelope detector (200)) for detecting and outputting an envelope of a frequency modulated (FM) video signal (see col. 2 lines 26-33, col. 3 lines 52-65 and claims 1-6);

a level variation switching circuit (see fig. 3 comparator (300) and second amplifier (450)) for changing an envelope level of the FM video signal (the video signal detected by the reproducing head HD and that supplies to the comparator (300)).

Claim 1 differs from Jeong in that the claim further requires a video signal processing integrated circuit (IC) having the envelope detector. Official notice is given that it is well known in the art to integrate circuit. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jeong by using integrated circuit in order to reduce system complexity, cost and transmitter performance.

Claim 1 further differs from Jeong in that the claim further requires connecting an input of the level variation switching circuit to a control output of a microprocessor so that ON/OFF switching control of the level variation switching circuit is executed in response to a control data input from ((a)) the microprocessor.

In the same field of endeavor Kubota discloses a tape speed selector to record signal at the appropriate speed (see col. 11 lines 36-53). Kubota further discloses connecting an input of the level variation switching circuit (see fig. 8 SP/LP select (55)) to a control output of a microprocessor so that ON/OFF switching control of the level variation switching circuit is executed in response to a control data input from ((a)) the microprocessor (see input terminal (56) in fig. 8 and col. 11 lines 54-64 and col. 12 lines 17-54). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jeong by connecting the output of the microprocessor to the level variation switching circuit in order to select the correct reproducing mode automatically.

Regarding claims 2 and 3, claims 2 and 3 differ from Jeong in that the claims further requires that the level variation switching circuit reduces variation in the envelope level of the FM video signal according to standard playback (SP) mode information and super long playback (SLP) mode information, respectively, contained in the control data input from the

microcomputer, and the level variation switching circuit operates in dependence on a playback mode of a video cassette recorder. Although Jeong does not specify that the level variation switching circuit reduces variation in the envelope level of the FM video signal according to standard playback (SP) mode information and super long playback (SLP) mode information, respectively, contained in the control data input from the microcomputer, and the level variation switching circuit operates in dependence on a playback mode of a video cassette recorder, Jeong discloses the switch SW1 selects automatic or manual tracking control (see col. 2 lines 58-62). Jeong further discloses the apparatus is effective tracking control for speed varying reproduction such as slow-motion reproduction (see col. 1 lines 13-17 and col. 1 lines 26-32). Jeong further teaches PAL type width (see col. 3 lines 17-21). Jeong further discloses the changes of the signal which supplied to the microcomputer (see col. 3 lines 41-50).

In the same field of endeavor Kubota discloses the level variation switching circuit reduces variation in the envelope level of the FM video signal according to standard playback (SP) mode information and super long playback (SLP) mode information, respectively, contained in the control data input from the microcomputer (see col. 11 line 5- col. 12 line 54 and fig. 8, 9A and 9B). Kubota further discloses the level variation switching circuit operates in dependence on a playback mode of a video cassette recorder (see col. 11 lines 5-34). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jeong by reducing variation in the envelope level according to the SP/SLP mode of operation in order to execute auto tracking accurately.

Regarding claim 4, Jeong discloses the level variation switching circuit has a resistor at an output terminal of the envelope detector (see fig. 2 VR and Col. 2 line 66-col. 3 line 6, this resistor is turning on and off based on the input signal from the microprocessor).

Regarding claim 5, Jeong discloses a video signal processing circuit incorporating an envelope detecting circuit (see fig. 3 envelope detector (200)) for detecting an envelope level of an FM video signal (see col. 2 lines 26-33), wherein the envelope detecting circuit comprises: a peak detector (see fig. 3 inside waveform shaper (230) D2, R7 and C5, and the band pass filter (220) and fig. 4) for receiving the FM video signal and for detecting a peak value of the FM video signal (see col. 1 lines 52-67, col. 2 lines 47-53, col. 3 lines 27-55 and claims 1-12, waveform shaping); and

a level switch (see fig. 3 second amplifier (450) and comparator (300)) having a first input connected to an output of the peak detector (see fig. 2 and col. 2 lines 29-38 and col. 3 lines 7-15).

Claim 5 differs from Jeong in that the claim further requires a level switch having having a second input connected to a control output of a microprocessor for controlling the envelope level of the FM video signal according to mode information applied from the microprocessor so as to reduce a variation in the envelope level in accordance with a type of mode of operation of a video cassette recorder (VCR).

In the same field of endeavor Kubota discloses a tape speed selector to record signal at the appropriate speed (see col. 11 lines 36-53). Kubota further discloses connecting an input of the level variation switching circuit (see fig. 8 SP/LP select (55)) to a control output of a microprocessor so that ON/OFF switching control of the level variation switching circuit is

executed in response to a control data input from ((a)) the microprocessor (see input terminal (56) in fig. 8 and col. 11 lines 54-64 and col. 12 lines 17-54). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jeong by connecting the output of the microprocessor to the level variation switching circuit in order to select the correct reproducing mode automatically.

Regarding claim 6, Jeong discloses an amplifier (see fig. 3 first amplifier (210)) connected to an input terminal of the peak detector for amplifying the FM video signal with a predetermined gain prior to provision to the peak detector (see col. 3 lines 27-34).

Regarding claim 7, although Jeong does not specify that an amplifier connected to an output terminal of the peak detector for amplifying the FM video signal with a predetermined gain after processing in the peak detector, Jeong does disclose the head switching pulse is supplied to the input port I1 of the microcomputer with the result that the pulse train A having a predetermined number of pulses for every period (see col. 3 lines 7-15). Official Notice is given that it is well known in the art that connecting an amplifier with an output terminal of the peak detector. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jeong by providing an amplifier connected to an output terminal of the peak detector in order to control the gain.

Claim 10 is rejected for the same reason as discussed in claims 2 and 3 above.

Regarding claim 11, the limitations of claim 11 can be found in claims 1, 2 and 3. Therefore claim 11 is analyzed and rejected for the same reasons as discussed in claims 1, 2, and 3.

Regarding claims 12-13, the limitation of claims 12-13 can be found in claims 2 and 3. Therefore claim 12-13 are analyzed and rejected for the same reasons as discussed in claims 2 and 3.

Claim 14 is rejected for the same reason as described in claim 4 above.

Claim 15 is rejected for the same reason as described in claim 5 above.

Claim 16 is rejected for the same reason as described in claim 6 above.

Claim 17 is rejected for the same reason as described in claim 7 above.

Claim 20 is rejected for the same reason as described in claims 2 and 3 above.

#### ***Allowable Subject Matter***

5. Claims 8-9 and 18-19 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 8 and 18, the prior arts fail to teach or suggest claims 8 and 18 uniquely distinct features including level switch means includes a resistance element having a first terminal connected to said peak detector means and having a second terminal, said level switch means further including a switching control element connected to the second terminal of the resistance element, the switching control element being controlled by the mode information applied to said level switch means.

Claims 9 and 19 are allowed to since they depend on allowed claims 8 and 18.

#### ***Conclusion***



6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Miller (US Pat. No. 4,813,076) and Jongman (US Pat. No. 4,809,332) disclose peaks in the envelope detector.

Mitsubishi (US Pat. No. 5,107,381) discloses an envelope detector with IC for detecting and outputting an envelope of a frequency modulated signal, and a microprocessor that controls the level.

Hong (US Pat. No. 5,684,916).

Kurihara (US Pat. No. 5,541,907).

Newman (US Pat. No. 6,600,344).

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HELEN SHIBRU whose telephone number is (571) 272-7329.

The examiner can normally be reached on M-F, 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAMES J. GROODY can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Helen Shibru  
January 20, 2006

  
ROBERT CHEVALIER  
PRIMARY EXAMINER